

Amendments to the Claims:

A clean version of the entire set of pending claims, including amendments to the claims, is submitted herewith per 37 CFR 1.121(c)(3). This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claims 1-7 (Canceled).

8. (Previously Presented) A method for inspecting an integrated circuit, the method comprising:

measuring a voltage over a segment of a signal line; and

determining a signal current flowing through the signal line on the basis of the voltage and the resistance of the segment of the signal line,

wherein inspection of the integrated circuit is performed on the basis of the determined signal current.

Claims 9-12 (Canceled).

13. (Previously Presented) An integrated circuit comprising:

a signal line; and

a current measuring device for determining a current in the signal line,

wherein the current measuring device comprises a voltage measuring device connected across a segment of the signal line, said voltage measuring device being adapted to measure a voltage over a segment of the signal line, and

wherein the current measuring device determines the current on the basis of the measured voltage and an inherent resistance of the segment.

14. (Previously Presented) The method of claim 8, wherein measuring the voltage comprises:

connecting first and second inputs of a differential pair of transistors to first and second sides, respectively, of the segment, and making a first measurement;

reversing the connection of the differential pair of transistors to the segment by connecting the first and second inputs of the differential pair of transistors to the second and first sides of the segment, respectively, and making a second measurement; and

combining the first and second measurements to derive a result for use as the measured voltage over the segment.

15. (Previously Presented) The integrated circuit of claim 13, wherein the voltage measurement device includes:

a differential pair of transistors having respective first and second inputs; and means for toggling connections between first and second sides of the segment and the first and second inputs of the differential pair of transistors.

16. (Previously Presented) The integrated circuit of claim 13, further comprising means for successively connecting the voltage measuring device to the segment of the signal line and to a segment of a second signal line of the integrated circuit.

17. (Currently Amended) The integrated circuit of claim 13, further comprising first and second sub-circuits, and wherein the signal line extends between the first and second sub-circuits ~~on a semiconductor substrate~~.